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diameter of the tubing is chosen so that the air packets are stable. During operation, fluid and air flow down the line to the air separating chamber 24. Here air separates itself from the fluid and moves upward through a filter 37, returning to be used again. Fluid 38 flows on to the pressurizing pump. The pulsatile air pump 28 could be a peristaltic pump, possibly operating out of phase with the fluid metering pumps so that air is injected when liquid flow is minimum from the metering pumps. After the air is separated from the liquid, the liquid flows through a fluid assurance device 29, is pressurized by the pressurizing pump 33 and flows into the patient 34. The ECS will stop the pumping if the fluid assurance detector detects any air in the line to the pressurizing pump. All of the tubing down stream from the "per patient" connector 39 is disposed of after each patient. If the flow from the metering pumps is sufficiently pulsatile, it may not be necessary to have the air pump. The momentum of flowing fluid can be sufficient to entrain packets of air between packets of fluid.

IN THE CLAIMS:

Please cancel claim 1 without prejudice.

Please add the following new claim(s):

13. An injection apparatus comprising:

a first fluid source;

a second fluid source; and

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a fluid path disposed between the first and second fluid sources and a patient, the fluid path comprising:

a mixing device in fluid communication with the first and second fluid sources.

14. The apparatus of claim 13, wherein the fluid path further comprises at least one metering device disposed between the first and second fluid sources and the mixing device.

15. The apparatus of claim 14, further comprising a control device in communication with the metering device.

16. The apparatus of claim 13, wherein the fluid path further comprises a fluid assurance device disposed between the mixing device and the patient.

17. The apparatus of claim 13, wherein the first fluid source comprises a contrast source.

18. The apparatus of claim 13, wherein the second fluid source comprises a diluent source.

19. The apparatus of claim 13, wherein the fluid path comprises a reusable portion and a disposable portion.

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